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Thymol: Essential Oil - Health Benefits

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Abstract :

Thymol is naturally occurring phenol, which is generally used to treat several infections in human being. Thymol shows strong antifungal activity towards fungi *Penicillium* species which contaminate food. Genus *Thymus* has been used traditionally used for their different health benefits different studies show the very beneficial effect of thymus essential oils. Thymol is also useful in the treatment of Bronchitis.

Thymol has a powerful anticeptic property. Thymol is present in many mouth washes and other dental product also to fight tooth decay and infection. Thymol is also used as a pesticide, insecticide, fungicide. Thymol decreases the free radicals from our body by increasing the activity of several endogenous antioxidant enzymes. Different compounds present in the essential oil of thymol, includes caryophyllene and camphene, which has powerful anticeptic property, used in healing wounds of infections.

Thyme oil is useful in the treatment of bronchitis, whooping cough and respiratory infection. From different studies, we can find out that role of thymol is very important in the prevention of various type of disease, through its multiuseful properties from antitoxident to antitumour also. Hence thymol is used as a most powerful chemical in the race of phytochemical having preventive and therapeutic properties against different human disease.

Key words : Thymol, Antimicrobial, antifungal, thyme, expectorant, bronchitis

Introduction:

Genus *Thymus* has been used traditionally used for their different health benefits different studies show the very beneficial effect of thymus essential oils. Thymol is very well known monoterpene phenol present in this essential oil, it is extracted *Thymus vulgaris* and other different plant. It is found in the form of white crystalline substance, which has pleasant aromatic strong odour.

Thymol is the chemical present in thyme, which is used with another chemical chlorhexine, used for dental wash, to avoid tooth decay. In some manufacturing industries, red thyme oil is used to prepare perfumes. Thyme is also used to had nice flavour in some food material. It is also used in making soaps, toothpaste and cosmetics.

Essential oil Thymol is mostly used as antiseptic oil. It has been known for its antibacterial, antiviral and antifungal, antioxidants, anti-inflammatory, antiseptic, local anaesthetic activity. It has also useful effects on our cardiovascular system.

It has also a preservative property, so it is generally used in mosquito repellent, for their natural repellent effect in aromatherapy. It is also used in different traditional medicine for the remedy of coughs, headaches and diarrhoea.

Thymol is naturally occurring phenol, which is generally used to treat several infections in human being. Thymol was first isolated in 1719 by Neumann from the plant *Thymus vulgaris* (Family Labiatae). It has been found in essential oil of some plants belonging to the genera *Thymus* (Thyme), *Origanum* and *Carum* (Ajowan). This plants have rich source of Thymol.

Oxidation of Thyme oil is avoided by storing it in a dark airtight container in a refrigerator. We can add antioxidant in it, but Thymol is an antioxidant.

Mouthwas Listerine contains several essential oil components.eg. Thymol, menthol, eucalyptol which is excellent for dental problems and throat infection. Which is also used to reduce oral mycositis. Three drops of this essential oil with 15ml warm water for a gargle will also help to fight infection.

Methodology:

Fungicidal Activity:-

Thymol shows strong antifungal activity towards fungi *Penicillium* species which contaminate food. It has fungitoxic activity towards *Cryptococcus neoformans*.

Thymol oil is very effective against dermatophytic fungi and stops mycelial growth of *Aspergillus parasiticus*. It is highly effective to stop growth of *Aspergillus flavus* Alfatoin production.

Thyme oil stop the growth of several pathogenic fungi like *Rhizoctonia Solani*, *pythium ultimum* *fusarium solani*, *colletotricum*. The fungicidal activity is due to degeneration of fungal hypha. Thyme oil is fungitoxin



to the spores of *Aspergillus* spp in different stored grains. Treatment of the yeast *Saccharomyces cerevisiae* with thymol shows cell lysis

Bronchitis treatment

Thymol is also useful in the treatment of Bronchitis. Thymol oil use as an expectorant for the patient. The excessive fluid which is present in the lungs, the person will experience bout of coughing in bronchitis. Thymol help to break down the mucus which is present in the body, like wise effective clear the air pathways of lungs

Antiseptic property

Thymol has a powerful anticeptic property. Thymol is present in many mouth washes and other dental product also to fight tooth decay and infection. It will also effect on gum diseases and bad breath. Use of thymol mouthwas, torinse for 30 second will help to treat mouth bacterias. As thyme oil is used as anti-spasmodic, it help to relax our arteries and veins so it lower our blood pressure and gives strength and tone to heart.

Thyme oil also help to prevent the formation of gas in our body and also removes excess gasses. As it works as diuretic, help our body to remove excess water and toxins so control inflammation. Thyme oil is also useful in irregular periods, in menopause and in menstrual problems. It stimulates blood flow towards pelvic area and uterus. Thyme oil is also used in skin treatment for the removal of scars, acnes and chicken pox. Thyme oil is useful in the treatment of bronchitis, whooping cough and respiratory infection. Thyme oil also used as effective against insects and pets. It also used to through away mosquitoes, fleas, bed bugs also. We can mix three drops of thymol oil with two teaspoon of sesame oil and used this mixture to relive pain of abdomen. It can be used as massage oil also. We can add two drops of thyme oil in our bath water to free from fatigue when we simply inhale the thyme oil, it uplifted our mood.

Discussions:

Thymol is the chemical present in thyme, Which is used with another chemical chlorohexin, used for dental wash to avoid tooth decay. In some manufacturing industries, red thyme oil in used to prepare perfumes. Thyme is also used to add rice flavour in some food material. It is also used in making soaps, tooth parts and cosmetics.

Tymol is useful for the treatment of minor health problem, infacts it is useful for the promotion of overall health. We can use thymol in the form of pills, powder. Sometimes it is found in the form of oil. Thymol is also used as a pesticide, insecticide, fungicide. Thymol decreases the free radicals from our body by increasing the activity of several endogenous antioxidant enzymes. Dietary supplement in the combination of thymol reduced the oxidative stress of our body. Thyme oil is very beneficial, it in used in aurvedic medicine. Thyme oil is used in the breast cancer treatment also to induce cell death. During treatment after 72 hrs, this essential oil killed maximum breast cancer cells, so used in drugs. Thyme oil has antibacterial property against acne. A bacterium propionibacteruim acne causes acne in our body. Thyme oil inhibits the growth of this bacteria. Spasms are involuntary muscle contraction which causes coughs, cramps and aches. Essential oil from thymol has anti-sapasmodic activity. So it is used to treat respiratory diseases. Thyme oil is used as diuretic, it helps to increase urination in our body and removes excess toxins from our body. It also stimulates the blood circulation which help to decrease uric acid from our blood. So it is used in anti- rheumatic diseases also. It has also anti- inflammatory property. Different compounds present in the essential oil of thymol, includes caryophyllene and camphene, which has powerful anticeptic property, used in healing wounds of infections.

Thyme oil has also anti-bacterial property used in different antibiotics, fount to be the most successful against staphylococcus species.

Conclusions :

From different studies , we can find out that role of thymol is very important in the prevention of various type of disease, through its multiuseful properties from antitoxident to antitumour also

The plants which are having thymol have been used from so many years, in different traditional medicines for the prevention of various diseases such has many cancer type, diabetes, neurodegenerative disease and cardiovascular disease also. Thymol is also an effective therapeutic agents for the management of numerous chronic diseases. We could achived the benefits of thymol in a very simple ways through normal daily diet. So the research on thymol as a drug is very progressive and encouraging .

Hence thymol is used as a most powerful chemical in the race of phytochemical having preventive and therapeutic properties against different human disease. Some protective effects of thymol is also useful in some liver disease.

Alzheimeris disease is very common age related disease, which leads to memory deferioration. This disease is associated with oxidative stress inflammation. Thymol possesses inhibitory activity for the this disease also.thymol has been shown to promote anti-anxity activity also dietary supplement thymol provides anti-oxidant.

Thyme oil can stimulates our blood circulation, improves digestion, secretion of harmoons and our whole body metabolism As mentioned in discussion that thyme oil is used as expectorant and antispasmodic, it also helps to relieve cough and heal infection in our chest. It also used to kill worms like round worms, tape worms and hook worms. It has antifungal property, very effective against *Candida albicans*, cause of yeast infection So we can used thymol in variety of ways. We used it in aromatherapy, used as mouth wash also It has a powerful medicinal effects because it has strong microbial properties.

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